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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/578,646

Filing Date: May 09, 2006

Appellant(s): SOOMRO, AMJAD

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Amjad Soomro  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 2 September 2011 appealing from the Office action mailed 10 March 2011.

**(1) Real Party in Interest**

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The following is a list of claims that are rejected and pending in the application:

1-23

**(4) Status of Amendments After Final**

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

**(5) Summary of Claimed Subject Matter**

The examiner has no comment on the summary of claimed subject matter contained in the brief.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

**(7) Claims Appendix**

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

**(8) Evidence Relied Upon**

2004/0264397	Benveniste	12-2004
7,274,691	Rogers	9-2007
2003/0126244	Smith	7-2003

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. **Claims 1, 3-8, 10-20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benveniste (US 2004/0264397 A1) in view of Rogers (US 7,274,691 B1).**

3. With respect to Claim 1, Benveniste disclosed: "A method to determine in a network component when to provide service to client devices operating in power-saving mode in a wireless network (Abstract, lines 1-3), said method comprising:

receiving requests for service from respective ones of said client devices (Figure 7, object 760 and [0074], lines 1-3), the received requests for service including a request for scheduled service received from a first one of the client devices ([0026], lines 1-9) and a request for unscheduled service received from a second one of the

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client devices ([0008], lines 1-6, where access points receive unscheduled frames from client devices);

    said network component being informed of said request for scheduled service ([0026], lines 1-9, where the network component is informed of a scheduled request by receiving it), and "said network component being informed of said request for unscheduled service ([0008], lines 1-6, where the network component is informed of an unscheduled request by receiving it)", and;

    "determining an ability to accommodate said received requests for service ([0050], lines 1-7); and

    providing respective indications of the ability to accommodate said received requests for service to the first and second ones of said client device ([0052], lines 1-3, and [0054], lines 1-3)".

Benveniste did not explicitly state: "said network component being informed of said request for scheduled service by a field of a traffic specification format being set to a first value, said network component being informed of said request for unscheduled service by said field of said traffic specification format being set to a second value different from said first value".

However, Rogers disclosed: "said network component being informed of said request for scheduled service by a field of a traffic specification format being set to a first value, said network component being informed of said request for unscheduled service by said field of said traffic specification format being set to a second value

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different from said first value (Col. 10, lines 35-43, where a scheduled packet flow, or request for service has associated packet header values that differentiate the flow from other traffic)".

One of ordinary skill in the art at the time of the invention would have been motivated to combine Benveniste and Rogers since Benveniste disclosed a method for delivering frames to wireless devices and Rogers disclosed a system for handling communications with nodes in a network.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the wireless network system of Benveniste with the teachings of Rogers to include support for a traffic specification format indicating a scheduled or unscheduled request. Motivation to combine these references comes from an access point being able to differentiate between scheduled and unscheduled requests to provide increased QoS for scheduled requests since they were arranged in advance.

4. With respect to Claim 8, Benveniste disclosed: "A device to determine when to provide service to client devices operating in power-saving mode in a wireless network (Abstract, lines 1-3), said device comprising:

a memory (Figure 3, object 303);

a processor in communication with said memory (Figure 3, object 302), said processor operable to execute code to:

receive requests for service from respective ones of said client devices (Figure 7, object 760), the received requests including a request for scheduled service received from a first one of the client devices ([0026], lines 1-9) and a request for unscheduled service received from a second one of the client devices ([0008], lines 1-6, where access points receive unscheduled frames from client devices, resulting in a collision); said device being informed of said request for scheduled service ([0026], lines 1-9, where the network component is informed of a scheduled request by receiving it)", and "said device being informed of said request for unscheduled service ([0008], lines 1-6, where the network component is informed of an unscheduled request by receiving it");

"determine an ability to accommodate received requests for service ([0050], lines 1-7); and

provide respective indications of the ability to accommodate said received requests for service to the first and second ones of said client device ([0052], lines 1-3, and [0054], lines 1-3)".

Benveniste did not explicitly state: "said device being informed of said request for scheduled service by a field of a traffic specification format being set to a first value, said device being informed of said request for unscheduled service by said field of said traffic specification format being set to a second value different from said first value".

However, Rogers disclosed: "said network component being informed of said request for scheduled service by a field of a traffic specification format being set to a

first value, said network component being informed of said request for unscheduled service by said field of said traffic specification format being set to a second value different from said first value (Col. 10, lines 35-43, where a scheduled packet flow, or request for service has associated packet header values that differentiate the flow from other traffic)".

One of ordinary skill in the art at the time of the invention would have been motivated to combine Benveniste and Rogers since Benveniste disclosed a method for delivering frames to wireless devices and Rogers disclosed a system for handling communications with nodes in a network.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the wireless network system of Benveniste with the teachings of Rogers to include support for a traffic specification format indicating a scheduled or unscheduled request. Motivation to combine these references comes from an access point being able to differentiate between scheduled and unscheduled requests to provide increased QoS for scheduled requests since they were arranged in advance.

5. With respect to Claim 18, Benveniste disclosed: "A processor (Figure 3, object 302) within a network component (Figure 3, objects 301, 304) to determine an ability of said network component to honor requests for service received from respective client

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devices (Abstract, lines 1-3), said processor being configured to cause the network component to:

review an operating state of said network component ([0036], lines 3-7, where buffering frames for a power-saving station in doze state indicates that the access point reviews the operating state of the network component);

review said requests for service ([0050], lines 1-7), the requests for service including requests for scheduled service ([0026], lines 1-9) and requests for unscheduled service ([0008], lines 1-6, where access points receive unscheduled frames from client devices);

said network component being informed of said requests for scheduled service ([0026], lines 1-9, where the network component is informed of a scheduled request by receiving it), and "said network component being informed of said requests for unscheduled service ([0008], lines 1-6, where the network component is informed of an unscheduled request by receiving it)", and;

"accommodate said received requests for service ([0054], lines 1-3), with modification when necessary ([0063], lines 1-4 and [0065], lines 1-3), when said operating state indicates that said requests for service are able to be accommodated ([0053], lines 1-4); and

provide respective indications of said accommodation to said first and second one of the client devices ([0065], lines 1-3)".

Benveniste did not explicitly state: "said network component being informed of said requests for scheduled service by a field of a traffic specification format being set to a first value, said network component being informed of said requests for unscheduled service by said field of said traffic specification format being set to a second value different from said first value".

However, Rogers disclosed: "said network component being informed of said requests for scheduled service by a field of a traffic specification format being set to a first value, said network component being informed of said requests for unscheduled service by said field of said traffic specification format being set to a second value different from said first value (Col. 10, lines 35-43, where a scheduled packet flow, or request for service has associated packet header values that differentiate the flow from other traffic)".

One of ordinary skill in the art at the time of the invention would have been motivated to combine Benveniste and Rogers since Benveniste disclosed a method for delivering frames to wireless devices and Rogers disclosed a system for handling communications with nodes in a network.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the wireless network system of Benveniste with the teachings of Rogers to include support for a traffic specification format indicating a scheduled or unscheduled request. Motivation to combine these references comes from an access point being able to differentiate between scheduled and unscheduled

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requests to provide increased QoS for scheduled requests since they were arranged in advance.

6. With respect to Claim 22, Benveniste disclosed: "A non-transitory computer readable media whose contents cause a processor to execute instructions to cause a network component to:

receive requests for service from client devices (Figure 7, object 760 and [0074], lines 1-3), the received requests including requests for scheduled service ([0026], lines 1-9) and requests for unscheduled service ([0008], lines 1-6, where access points receive unscheduled frames from client devices);

become informed of a request for scheduled service ([0026], lines 1-9, where the network component is informed of a scheduled request by receiving it)", and "become informed of a request for unscheduled service ([0008], lines 1-6, where the network component is informed of an unscheduled request by receiving it)", and;

"determine an ability to accommodate said received requests for service ([0050], lines 1-7); and

provide respective indications of the ability to accommodate said received requests for service to the first and second ones of said client device ([0052], lines 1-3, and [0054], lines 1-3)".

Benveniste did not explicitly state: "become informed of a request for scheduled service by a field of a traffic specification format being set to a first value, become

informed of a request for unscheduled service by said field of said traffic specification format being set to a second value different from said first value".

However, Rogers disclosed: "become informed of a request for scheduled service by a field of a traffic specification format being set to a first value, become informed of a request for unscheduled service by said field of said traffic specification format being set to a second value different from said first value (Col. 10, lines 35-43, where a scheduled packet flow, or request for service has associated packet header values that differentiate the flow from other traffic)".

One of ordinary skill in the art at the time of the invention would have been motivated to combine Benveniste and Rogers since Benveniste disclosed a method for delivering frames to wireless devices and Rogers disclosed a system for handling communications with nodes in a network.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the wireless network system of Benveniste with the teachings of Rogers to include support for a traffic specification format indicating a scheduled or unscheduled request. Motivation to combine these references comes from an access point being able to differentiate between scheduled and unscheduled requests to provide increased QoS for scheduled requests since they were arranged in advance.

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7. With respect to Claims 3 and 10, the combination of Benveniste and Rogers disclosed: "wherein said request for scheduled service includes a proposed service schedule (Benveniste, [0049], lines 1-3)".

8. With respect to Claims 4 and 11, the combination of Benveniste and Rogers disclosed: "further comprising: modifying said proposed service schedule (Benveniste, [0063], lines 1-4)".

9. With respect to Claims 5 and 12, the combination of Benveniste and Rogers disclosed: "further comprising: providing said modified proposed service schedule to said first one of the client devices (Benveniste, [0065], lines 1-3)".

10. With respect to Claims 6 and 13, the combination of Benveniste and Rogers disclosed: "wherein said indications are selected from a group consisting of: denied (Benveniste, [0052], lines 1-3), accommodated with change (Benveniste, [0065], lines 1-3), and accommodated (Benveniste, [0054], lines 1-3)".

11. With respect to Claims 7 and 14, the combination of Benveniste and Rogers disclosed: "wherein said determining the ability to accommodate is based on at least one factor selected from a group consisting of: a requested servicing method (Benveniste, [0050], lines 1-7), a proposed schedule (Benveniste, [0050], lines 1-7),

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network operating state (Benveniste, [0050], lines 1-7), network policy (Benveniste, [0050], lines 1-7), and network condition (Benveniste, [0050], lines 1-7)".

12. With respect to Claim 15, the combination of Benveniste and Rogers disclosed:  
"The device as recited in claim 8, further comprising: an I/O device operable as an interface between said network and said processor (Benveniste, Figure 3, objects 301, 304)".

13. With respect to Claim 16, the combination of Benveniste and Rogers disclosed:  
"The device as recited in claim 8, wherein said code is stored in said memory (Benveniste, [0040], lines 1-6)".

14. With respect to Claim 17, the combination of Benveniste and Rogers disclosed:  
"The device as recited in claim 8, further comprising: a receiving device to receive said requests (Benveniste, Figure 3, object 301); and a transmitting device to provide said respective indications to the first and second ones of said client devices (Benveniste, Figure 3, object 304).

15. With respect to Claim 19, the combination of Benveniste and Rogers disclosed:  
"The processor as recited in claim 18, wherein said processor is further configured to cause the network component to: provide respective indications of denying said requests for service to the respective client devices when said operating state indicates

that said requests for service are unable to be accommodated (Benveniste, [0052], lines 1-5)".

16. With respect to Claim 20, the combination of Benveniste and Rogers disclosed: "The processor as recited in claim 18, wherein said operating state is selected from a group consisting of: processing load (Benveniste, [0052], lines 3-5), demand (Benveniste, [0050], lines 1-7), projected processing load (Benveniste, [0050], lines 1-7), projected demand (Benveniste, [0050], lines 1-7), network component operating state (Benveniste, [0036], lines 3-5, data is not transferred when the device is in power-saving mode), network component policy (Benveniste, [0050], lines 1-7), and network component condition (Benveniste, [0036], lines 3-5, data is not transferred when the device is in power-saving mode)".

17. **Claims 2, 9, 21 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benveniste and Rogers in view of Smith et al. (US 2003/0126244 A1).**

18. With respect to Claims 2, 9, 21 and 23, the combination of Benveniste and Rogers did not explicitly state: "in response to being unable to accommodate the request for unscheduled service, providing a proposed schedule to the second one of the client devices".

However, Smith disclosed: "in response to being unable to accommodate the request for unscheduled service ([0028], lines 1-4 and [0029], lines 1-2, where a request

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is denied), providing a proposed schedule to the second one of the client devices ([0029], lines 1-2, and [0034], lines 1-6, where a denied request is scheduled for a future time)".

One of ordinary skill in the art at the time of the invention would have been motivated to combine Benveniste and Rogers with Smith since Benveniste and Rogers disclosed a method for communicating with wireless devices and Smith disclosed a method for scheduling communication with wireless devices.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the scheduling system of Benveniste and Rogers with the teachings of Smith to include support for denying an unscheduled request and providing a schedule for the denied request. Motivation to combine these comes from Smith, where: "In particular, there is a need in the art for mechanisms to more efficiently use network resources within a pull technology environment by balancing the network and server workload during periods when the demand on resource bandwidth exceeds the resource's capability to provide that bandwidth in real time" ([0005], lines 3-8). Therefore by combining the references one can schedule requests that would overload a network for a future time, and thereby utilizing network resources more efficiently.

#### **(10) Response to Argument**

The examiner summarizes the various points raised by appellant and addresses replies individually.

Appellant argued that:

(1) "Claims 1-7 are not rendered obvious by Benveniste, considered alone or in combination with Rogers and Smith" (pg 17, argument A). Specifically: "There is no mention of using a field of traffic specification format to indicate whether a request for service is a request for scheduled service or a request for unscheduled service" (pg 18, lines 4-6).

**In reply** to appellant's argument the examiner submits that the claim recites: "said network component being informed of said request for scheduled service by a field of traffic specification format being set to a first value, said network component being informed of said request for unscheduled service by said field of traffic specification format being set to a second value different from said first value" (Claim 1, lines 7-10). The claim does not require the request to contain the field. Rogers disclosed scheduled and unscheduled packet data (see Col. 17, lines 6-8). A field of traffic specification format informs the switch whether the packets are scheduled or unscheduled, see Col. 17, line 64 – Col. 18, line 19, specifically the determining can be "YES" or "NO". Furthermore, Rogers at Col. 10, lines 35-43, describes handling scheduled flows at the switch.

(2) "Rogers appears to be completely unrelated to devices operating in a power-saving mode" (pg 18, lines 6-7).

**In reply** to appellant's argument the examiner submits that Rogers disclosed methods of providing bandwidth and delay guarantees for communications over a network (Rogers, Abstract). Such guarantees could be useful to devices operating in a power saving mode because if a device wakes up when the network is congested with other traffic the device will be on and wasting power downloading data for a longer amount of time than if the device had guaranteed bandwidth.

(3) "the cited portion of Rogers discusses identifying packets as part of a particular real-time application packet flow using header fields. There is no mention of using a field of traffic specification format of a request for service, for any reason, let alone to indicate whether the request for service is a request for scheduled or unscheduled service" (pg 19, lines 3-7, not including cited portions).

**In reply** to appellant's argument the examiner submits that Rogers teaches the service being requested is bandwidth. A packet entering a switch is a request for bandwidth of the switch. Furthermore, Benveniste was used to disclose requests for service (Figure 7, object 760 and [0074], lines 1-3), in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

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(4) "Claims 8-17 are not rendered obvious by Benveniste, considered alone or in combination with Rogers and Smith" (pg 20, argument B). Specifically appellant argues: Examiner then apparently reasons (without citing any evidentiary support) that a packet that identifies itself as part of a previously scheduled particular real-time application packet flow using any combination of header field values identifies itself as a request for scheduled service using those fields" (pg 19, line 14 – pg 20, line 2, cited portions not included).

**In reply** to appellant's argument the examiner submits that as stated above, in Rogers, the service being requested is bandwidth. A switch offers a certain amount of bandwidth for communications switching in a network, a packet entering a switch is a request for bandwidth of the switch. See Rogers, Col. 1, lines 32-51.

(5) Even if Rogers disclosed said network component being informed of scheduled requests for service by a field of traffic specification format being set to a first value, "this does not mean that Rogers would also disclose 'said network component being informed of said request for unscheduled service by a field of traffic specification format being set to a second value different from said first value.' For example, the one or more fields of the previously scheduled packets of Rogers could have different values for any number of reasons, such as to indicate they are part of another previously scheduled real-time packet flow" (pg 20, first full paragraph).

**In reply** to appellant's argument the examiner submits that the claim only recites that said field of traffic specification format has two values, one for scheduled and a

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different one for unscheduled, not that the field of traffic specification format is limited only these two values.

(6) That independent claims 8, 18 and 22 contain similar limitations to claim 1 and dependent claims 2-7, 19-21 and 23 depend from independent claims and are therefore allowable.

**In reply** to appellant's argument the examiner respectfully disagrees, see above rejections and arguments.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

**(12) Conclusion**

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/MSL/

Matthew Lindsey

Examiner, Art Unit 2453

Conferees:

/THUHA T. NGUYEN/

Primary Examiner, Art Unit 2453

/Krista M. Zele/  
Supervisory Patent Examiner, Art Unit 2453